



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0222; Directorate Identifier 2011-SW-007-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Eurocopter France Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Eurocopter France Model AS350 helicopters. This proposed AD is prompted by an in-flight fire caused by ignition of hydraulic fluid leaking from a damaged forward (pitch) servo-control hydraulic hose. The proposed actions are intended to prevent the forward servo-control hydraulic hoses from becoming damaged and leaking hydraulic fluid that could ignite in flight, which can result in loss of main rotor control, power loss, structural damage, propagation of fire, and subsequent loss of control of the helicopter.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- **Fax:** 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**EXAMINING THE AD DOCKET:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052, telephone (972) 641-0000 or (800) 232-0323, fax (972) 641-3775, or at <http://www.eurocopter.com/techpub>. You may review copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** Matt Wilbanks, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Boulevard, Fort Worth, Texas 76137; telephone (817) 222-5051; e-mail [matt.wilbanks@faa.gov](mailto:matt.wilbanks@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued AD No. 2011-0033, dated March 1, 2011 (AD 2011-0033) to correct an unsafe condition for the Eurocopter AS350 B, BA, BB, D, B1, B2, and B3 helicopters with a single hydraulic power system and forward (pitch) servo-control hydraulic hoses part number (P/N) 704A34-412-033 (other reference manufacturer's part number (MP/N) 675-102-05-01) and P/N 704A34-412-035

(other reference MP/N 675-102-06-01) installed. EASA advises that an in-flight fire in the main gearbox compartment occurred on an AS350B2 helicopter, “caused by ignition of hydraulic fluid leaking from a hydraulic hose that had been damaged following an electrical fault in a circuit located in the compartment, which is not fire protected. An in-flight fire in the main gearbox compartment during a continued flight, when undetected or where a landing could not be performed immediately, could result in loss of hydraulics, shutdown of the engine because of fire effects, and damage to the Main Rotor (M/R) control system.” This condition, if not prevented, could lead to loss of M/R control, power loss, structural damage, propagation of fire into the cabin or other compartments, and subsequent loss of control of the helicopter. For these reasons, AD 2011-0033 requires installation of protection sleeves on the affected hydraulic hoses.

#### **FAA’s Determination**

These products have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, their technical representative, has notified us of the unsafe condition described in their AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition likely to exist or develop on other helicopters of the same type design.

#### **Related Service Information**

Eurocopter has issued Alert Service Bulletin No. 29.00.13, dated July 26, 2010 (ASB 29.00.13), which specifies installing two siliconed glass wool sleeves over both forward main rotor servo-control hydraulic hoses. EASA classified this ASB as

mandatory and issued AD 2011-0033 to ensure the continued airworthiness of these helicopters.

### **Proposed AD Requirements**

This proposed AD would require, within 30 days, installing protection sleeves over the forward (pitch) servo-control hydraulic hoses in accordance with paragraph 2.B.2 of ASB 29.00.13.

### **Differences between this Proposed AD and the EASA AD**

The EASA AD applies to the Eurocopter Model AS350 BB. The proposed AD does not, as this model is not type certificated in the U.S.

### **Costs of Compliance**

We estimate that this proposed AD would affect 695 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD. Disconnecting the servo control hoses, installing the protective sleeves, reconnecting the hoses, and testing for interference requires one work hour at an average labor rate of \$85 per hour. Required parts cost \$212, for a total cost of \$297 for each helicopter. Based upon these costs, we estimate a total cost to the U.S. operator fleet of \$206,415.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new Airworthiness Directive (AD):

**EUROCOPTER FRANCE HELICOPTERS:** Docket No. FAA-2012-0222;

Directorate Identifier 2011-SW-007-AD.

(a) **Applicability.** This AD applies to Eurocopter France Model AS350B, AS350BA, AS350D, AS350B1, AS350B2, and AS350B3 helicopters, certificated in any category, with a single hydraulic power system and either of the following forward (pitch) servo-control hydraulic hoses installed: part number (P/N) 704A34-412-033 (other reference manufacturer's part number (MP/N) 675-102-05-01), or P/N 704A34-412-035 (other reference MP/N 675-102-06-01); excluding those helicopters that have been modified in accordance with modification 074238.

(b) **Unsafe Condition.** This AD defines the unsafe condition as unprotected forward (pitch) servo-control hydraulic hoses, which could become damaged and leak hydraulic fluid that could ignite in flight. This condition could result in loss of main rotor

control, power loss, structural damage, propagation of fire into the cabin or other compartments, and subsequent loss of control of the helicopter.

(c) **Compliance.** You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(d) **Required Actions.**

(1) Within 30 days, install sleeve P/N 706A34-402-225 over hydraulic hose P/N 704A34-412-033 and sleeve P/N 706A34-402-224 over hydraulic hose P/N 704A34-412-035 in accordance with Accomplishment Instructions, paragraph 2.B.2, of Eurocopter Alert Service Bulletin No. 29.00.13, dated July 26, 2010.

(2) Do not install an affected hydraulic hose on any helicopter without a sleeve in accordance with paragraph (d)(1) of this AD.

(e) **Alternative Methods of Compliance (AMOC).**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Wilbanks, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Boulevard, Fort Worth, Texas 76137, telephone (817) 222-5051, e-mail [matt.wilbanks@faa.gov](mailto:matt.wilbanks@faa.gov).

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.



(f) **Additional Information.** The subject of this AD is addressed in European Aviation Safety Agency AD No. 2011-0033, dated March 15, 2011.

(g) **Subject.** Joint Aircraft Service Component (JASC) Code: 2900: Hydraulic Power System.

Issued in Fort Worth, Texas, on February 24, 2012.

Lance T. Gant,

Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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